

ABSTRACT

An optical module is provided in which any conjugate ratio in an optical axis direction may be easily realized, the time duration for alignment may be shortened by using a passive alignment technique, and a large degree of may be obtained for any optical design. The optical module comprises a planar microlens array, a transparent substrate for adjusting a conjugate ratio of the optical module, and a guide substrate for optical fibers. The planar microlens array consists of a planar transparent substrate, in one surface thereof a plurality of circular microlenses are formed and arrayed. The transparent substrate includes a plurality of micro fitting recesses formed and arrayed in one surface thereof. The guide plate includes a plurality of micro guide holes opened therethrough.